

Toxic levels high in valley runoff
Concentrations of pesticides exceed proposed limits
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Samples of rainfall and storm-water runoff in the Central Valley show pesticide concentrations up to 10 times the levels that would be allowed under proposed new state regulations, federal scientists reported Monday.

A study by the U.S. Geological Survey, led by USGS scientist Celia Zamora, found levels of two organophosphates -- diazinon and chlorpyrifos - - in all rainfall samples collected in or around Modesto during winter storms in 2001. More recent samples are still being analyzed for some 20 chemicals in all, the USGS said.

Study authors and state regulators said the concentrations were not so high as to threaten human health, but could pose a danger to small aquatic species in the valley.

New rules are being drafted by the state Department of Pesticide Regulation to address the issue of pesticide runoff into surface waters. The regulations are expected to be proposed late this year, said Glenn Brank, a department spokesman.

The USGS study also found high levels of the toxic chemicals in storm runoff in urban areas of Modesto. Although that came as no big surprise, experts said it underscored how widespread farm chemicals appear to be in the Central Valley environment, despite efforts to limit their use.

In addition to testing rainfall and runoff, USGS researchers also analyzed 240 water samples taken from the San Joaquin, Merced, Stanislaus, and Tuolumne rivers and Orestimba Creek. The proposed state guidelines were exceeded in 60 of the samples for diazinon and in 18 for chlorpyrifos.

Both chemicals are ingredients in an older class of pesticides that target the nervous systems of insects. They are applied to almonds and other tree crops during winter months when the trees are dormant and vulnerable to pests. State and federal regulators have been encouraging less toxic alternatives in recent years, and farm-chemical manufacturers have in some cases already found substitutes.

Ken Gordon, a spokesman for Syngenta Crop Protection in Greensboro, N.C., a manufacturer of diazinon, said the company is phasing out the product and already has ceased producing it for the home and garden market. The product has been sold since 1952.

The levels found by the USGS are in line with previous studies, Gordon said,

including company-sponsored environmental studies done in 1997. "The levels that were found are not high enough to have a real impact with regard to human health or aquatic species," he said.

Environmentalists differed with that assessment of the dangers but said they were not surprised the USGS found high levels of the two chemicals in Central Valley rainfall and watersheds.

"They've been known to be major problems for some time," said Monica Moore of the Pesticide Action Network in San Francisco. "These are nervous system pesticides, and they also affect human nervous systems as well as insect nervous systems."

The full USGS report, "Diazinon and Chlorpyrifos Loads in Precipitation and Urban and Agricultural Storm Runoff during January and February 2001 in the San Joaquin River Basin, California," by Celia Zamora, Charles R. Kratzer, Michael S. Majewski and Donna L. Knifong, can be found on the Web at: <http://water.usgs.gov/pubs/wri/wri034091>.